

ABSTRACT OF THE DISCLOSURE

In a method for controlling operation of a compressor, the compressor is shut off by a control device in order to prevent thermal damages when an estimated temperature value T_s calculated by said control device exceeds an upper threshold value T_{\max} while the compressor remains on or is allowed to be turned on when there is a need for compression and a lower threshold value T_{\min} is not reached. In order to be able to more accurately estimate the estimated temperature and increase the thermal availability of the compressor, the estimated temperature value T_s is indirectly and cyclically determined by means of a mathematical-physical model that characterizes the cooling and heating properties of the compressor.